

Amendments to the Claims:

Claim 1 (currently amended). The method of providing an LED array assembly, that includes:

- a) providing a grid of electrical conductors, certain of which provide electrical power,
- b) providing light emitting diodes and locating the diodes in association with the grid and in electrical communication with the said certain conductors that provide power, for LED operation,
- c) the grid operable to receive heat from the diodes during diode operation, and the grid configured for passing coolant fluid for transfer of heat to the fluid[.],
- d) there being open spaces between multiple of said conductors which are undulating in the grid whereby coolant fluid flows in said spaces to remove heat generated by diode operation.

Claim 2 (currently amended). The method of claim 1 wherein the electrical conductors are provided in the form of insulated metal wires that act as electrical and thermal conductors and that also serve as structural load conductors, for arrays of such diodes[.], including flowing said coolant fluid through said spaces for removing said heat.

Serial No. 10/722,672

Claim 3 (currently amended). The method of claim ~~1~~ 2 wherein the wires are dielectrically coated.

Claim 4 (original). The method of claim 1 wherein the conductors are provided in the form of woven wires.

Claim 5 (original). The method of claim 1 wherein the array has at least one of the following characteristics:

- i) curvature
- ii) complex shape
- iii) compliant configuration
- iv) flexibility.

Claim 6 (original). The method of claim 1 including effecting and/or guiding flow of coolant fluid through or along the array.

Claim 7 (original). The method of claim 1 wherein the grid is provided as a dark grid to increase viewing contrast with LEDs during their operation.

Claim 8 (original). The method of claim 1 including providing one of the following:

- i) a substrate above which LEDs are placed
- ii) a superstrate associated with the array and LEDs to provide structural strength to the assembly.

Claim 9 (original). The method of claim 1 including providing a first sheet facing the diodes, to pass light emitted by the diodes.

Claim 10 (original). The method of claim 9 including providing a second sheet at an opposite side of the diodes, the first and second sheets forming an enclosure within which coolant fluid is flowable.

Claim 11 (original). The method of claim 1 wherein the grid of electrical conductors is provided to include primary conductors extending generally in one direction, and secondary conductors extending generally in another direction, the LEDs being mounted on the primary conductors, and having terminals extending to the secondary conductors for electrical association thereto.

Claim 12 (original). The method of claim 11 wherein the secondary conductors are configured to extend above and/or below the primary conductors.

Claim 13 (original). The method of claim 12 wherein the secondary conductors are provided to have one of the following:

- i) substantial spacing therebetween to pass coolant fluid through the grid,
- ii) lack of substantial spacing therebetween, to pass coolant fluid parallel to the grid,
- iii) cross sections which are substantially less than the cross sections of primary conductors which support diodes,
- iv) junctions with diode wires.

Claim 14 (original). The method of claim 1 wherein certain of the conductors include multiple wire strands.

Claim 15 (original). The method of claim 1 including providing balls or beads and seating the balls or beads on the conductors to act as spacers.

Serial No. 10/722,672

Claim 16 (currently amended). The method of claim 1 including providing means displacing and conducting coolant to one side of the ~~screen grid~~, to flow through or adjacent to the array assembly.

Claim 17 (currently amended). The method of claim 1
wherein there are paths of light from the diodes, and
including providing a transparent panel extending in
~~the path of light from the LEDs~~ said paths.

Claim 18 (original). The method of claim 1 wherein each diode is provided to include a light emitter or emitters, a transparent container having a window area, the emitter supported within the container, and a reflector within the container to reflect emitted light toward said window.

Claim 19 (original). The method of claim 18 including providing an electrical lead or leads extending with helical configuration within the container to said emitter or emitters.

Claim 20 (original). The method of claim 19 wherein the lead or leads is or are formed to has or have a generally rectangular cross section, for stable support of the emitter or emitters.

Claim 21 (currently amended). The method of claim ~~18~~ ~~19~~ including providing a metallic base carrying the container, and through which said lead or leads extend.

Claim 22 (original). The method of claim 20 including providing said lead or leads include wires associated with a red and/or green and/or blue emitter.

Claim 23 (original). The method of claim 18 wherein multiple of said diodes have their container windows facing in the same or selected directions.

Claim 24 (original). The method of claim 23 wherein the diodes and array assembly define a display.

Claim 25 (original). The method of claim 21 wherein said base is provided to have an edge portion defining a recess for reception of a support for the diode, allowing diode rotation about the support, and including effecting said rotation.

Claim 26 (original). The method of claim 25 wherein said electrical conductors are provided to define a mesh, and multiple of said LED devices are carried by the mesh, with said recesses receiving portions of said conductors allowing rotation of the devices relative to the mesh.

Claim 27 (currently amended). The method of providing a light emitting diode device, that includes

- i) providing an electrically energizable light emitter, or emitters;
- ii) providing a transparent container having a window;
- iii) supporting the emitter or emitters within the container;
- iv) and providing a reflector structure within the container to reflect emitted light toward said window[.].
- v) providing a grid of electrical conductors supporting the container,
- vi) there being open spaces between multiple of said conductors which are undulating in the grid whereby coolant fluid flows in said spaces to remove heat generated

by diode device operation.

Claim 28 (original). The method of claim 27 including providing an electrical lead or leads extending with helical configuration within the container to said emitter or emitters.

Claim 29 (original). The method of claim 27 wherein the lead or leads is or are provided to has or have a generally rectangular cross section, and to support the emitter or emitters.

Claim 30 (original). The method of claim 27 including providing a metallic base carrying the container, and through which said lead or leads extend.

Claim 31 (original). The method of claim 27 wherein said reflector structure is provided to include spaced reflecting walls, and a curved reflector supported between said walls.

Claim 32 (original). The method of claim 28 including providing said lead or leads to include wires associated with a red and/or green and/or blue emitter.

Claim 33 (original). The method of claim 27 including providing multiple of said devices having their windows facing in a display direction or directions.

Claim 34 (original). The method of claim 33 including providing display structure supporting said diode devices in a multiple diode display configuration.

Claim 35 (currently amended). The method of providing a light emitting diode device, that includes

- i) providing an electrically energizable light emitter, or emitters;
- ii) providing a transparent container having a window;
- iii) supporting the emitter or emitters within the container;
- iv) and providing a reflector structure within the container to reflect emitted light toward said window,
- v) providing a metallic base carrying the container, and through which said lead or leads extend,

vi) ~~The method of claim 30 and wherein~~
said base ~~has~~ is provided to have an
edge portion defining a recess for
reception of a support for the diode,
allowing diode rotation about the
support, and including effecting said
rotation to a selected diode display
configuration.

Claim 36 (original). The method of claim 1 wherein
certain of said conductors that provide power for diode
operation are configured as first, second and third
pairs of wires to transmit electrical energization to
red, green and blue LED pixels, respectively.

Claim 37 (currently amended). The method of providing
an LED array assembly, that includes:

- a) providing a grid of electrical
conductors, certain of which provide electrical power,
- b) providing light emitting diodes and
locating the diodes in association with the grid and in
electrical communication with said certain conductors
that provide power, for LED operation,
- c) the grid operable to receive heat from
the diodes during diode operation, and the grid

configured for passing coolant fluid for transfer of heat to the fluid,

d) and wherein certain of said conductors that provide power for diode operation are configured as first, second and third pairs of wires to transmit electrical energization to red, green and blue LED pixels, respectively,

e) The method of claim 36 and wherein each LED has primary, secondary and tertiary wires electrically connected to the red, green and blue pixels, respectively, said primary wire configured to be clamp connected to said first pair of wires, said secondary wire configured to be clamp connected to said second pair of wires, and said tertiary wire configured to be clamp connected to said third pair of wires.

Claim 38 (original). The method of claim 37 including locating said three pairs of wires about a central region, and said LED primary, secondary and tertiary wires are respectively nested between said three pairs of wires, there being a retainer acting to clamp said primary, secondary and tertiary wires in nested position.

Claim 39 (original). The method of claim 38 wherein said certain conductors are located to extend at an acute angle or angles relative to others of said conductors, said certain conductors defining LED addressing conductors to selectively address LEDs on said others of the conductors.

Claim 40 (original). The method of claim 39 wherein said acute angle or angles are approximately 45°.

Claim 41 (original). The method of claim 1 including providing protective means at one of the following:

- i) at the front of the grid;
- ii) at the rear of the grid;
- iii) at both the front and rear of the grid.

Claim 42 (currently amended). The method of claim ~~1~~ 41 wherein said protective means is provided to include at least one metallic plate.

Claim 43 (original). The method of claim 42 wherein said metallic plate is characterized by one of the following:

- x₁, forming air passing openings;

- x₂) forming air passing louvers;
- x₃) forming air passing through slits.

Claim 44 (original). The method of claim 42 wherein said protective means is provided in the form of a metallic screen or screens.

Claim 45 (original). The method of claim 1 wherein the diodes are removably supported by the grid.

Claim 46 (original). The method of claim 1 characterized by at least one of the following:

- i) diode emission control electronics provided within diode packages
- ii) diode emission control electronics provided at or proximate an edge or edges of the grid.

Claim 47 (original). The method of claim 1 including providing a light reflecting mirror or mirrors in association with a diode or diodes.

Serial No. 10/722,672

Claim 48 (original). The method of claim 47 wherein said mirror or mirrors is or are provided in the form of one or more of the following:

- i) a parabolic mirror
- ii) dual mirrors within a package
- iii) a parabolic trough forming mirror or mirrors.

Claim 49 (original). The method of claim 1 including providing a conduit for extensions of the conductors, outside the grid.

Claim 50 (currently amended). The method of providing an LED array assembly, that includes:

- a) providing a grid of electrical conductors, certain of which provide electrical power,
- b) providing light emitting diodes and locating the diodes in association with the grid and in electrical communication with said certain conductors that provide power, for LED operation,
- c) the grid operable to receive heat from the diodes during diode operation, and the grid configured for passing coolant fluid for transfer of heat to the fluid,

d) providing a conduit for extensions of the conductors, outside the grid,

e) ~~The method of claim 49 and~~ including providing spring tension exerting means acting on the conduit.

Claim 51 (currently amended). The method of providing an LED array assembly, that includes:

a) providing a grid of electrical conductors, certain of which provide electrical power,

b) providing light emitting diodes and locating the diodes in association with the grid and in electrical communication with said certain conductors that provide power, for LED operation,

c) the grid operable to receive heat from the diodes during diode operation, and the grid configured for passing coolant fluid for transfer of heat to the fluid,

d) providing a conduit for extensions of the conductors, outside the grid,

e) ~~The method of claim 49 and~~ including providing holders about which end portions of the conductors in the grid are looped, the holders provided in association with the conduit.

Claim 52 (original). The method of claim 1 wherein the diodes are provided in the form of packages having adjustable operative connection to the conductors characterized by one of the following:

- i) rotatable adjustability about one axis
- ii) rotatable adjustability about two axes.

Claim 53 (original). The method of claim 52 wherein the diodes packages in the array are provided to have different positions of adjusted angularity.

Claim 54 (currently amended). The method of providing and an LED array assembly that includes:

- a) providing a grid of electrical conductors,
- b) providing light emitting diodes and locating the diodes in association with the grid and in electrical communication with the conductors that provide power for LED operation,
- c) and providing LED structure allowing rotary adjustment of at least some LEDs relative to conductors on which those LEDs are supported[[.]],

d) there being open spaces between multiple of said conductors which are undulating in the grid whereby coolant fluid flows in said spaces to remove heat generated by diode operation.

Claim 55 (original). The method of claim 54 wherein said rotary adjustment is characterized by one of the following:

- i) rotation about an axis or axes defined by the LED or LEDs
- ii) rotation about a conductor axis or axes
- iii) rotation about both i) and ii) above.

Claim 56 (currently amended). The method of providing an LED array assembly that includes:

- a) providing a grid of electrical conductors,
- b) providing light emitting diodes and locating the diodes in association with the grid and in electrical communication with the conductors that provide power for LED operation,
- c) and providing LED structure allowing rotary adjustment of at least some LEDs relative to

conductors on which those LEDs are supported,

d) ~~The method of claim 54 and~~ including providing clip means positioning the conductors relative to which the LEDs are rotatably adjustable.

Claim 57 (withdrawn). The method that includes:

- a) providing multiple LEDs in a display array, and
- b) selectively electrically energizing the LEDs in the array to adjust the display,
- c) cooling the display array.

Claim 58 (withdrawn). The method of claim 57 including selectively adjusting the positioning of the LEDs in the array.

Claim 59 (new). The method of claim 1 including providing said light emitting diodes in a display array, selectively energizing said diodes in the array to adjust the display, said passing of coolant fluid acting to cool the display array.

Claim 60 (new). The method of claim 59 including selectively adjusting the positioning of diodes in the display array.